

The role of thermal destruction ...

S/020/62/145/003/010/013
B101/B144

formation of gaseous monomers set in. Between 130 and 190°C, transparency decreases with the molecular weight. Conclusions: the loss in transparency is a measure for the relaxation of the grains deformed by molding. Relaxation is caused by separation of C-C bonds. Hence, increased molding pressure or inhibitor addition (0.22% diphenyl picryl hydrazine) decelerates the relaxation and impedes the production of transparent specimens. Measurement of the decrease in specimen height during annealing showed that the logarithm of the molding time depends linearly on the reciprocal temperature at which the height becomes constant. The activation energy (75 kcal/mole) thus calculated, is in good agreement with that of the C-C bond. Perfectly molded specimens are obtained at temperatures and pressures which guarantee complete relaxation. There are 4 figures. f

PRESENTED: March 17, 1962, by V. A. Kargin, Academician

SUBMITTED: March 17, 1962

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L 15603-63

EWP(j)/EPF(c)/EWT(m)/BDS ASD Pc-4/Pr-4 RM/

WW/JW/MAY

ACCESSION NR: AP3004706

S/0190/63/005/008/1196/1200/8

AUTHORS: Arzhakov, S. A.; Ry*lov, Ye. Ye.; Slonimskiy, G. L.; Shtarkman, B. P. 66

TITLE: Peculiarities in the formation of monolithic solids under the effect of pressure and temperature on polyacrylonitrile powder

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 5, no. 8, 1963, 1196-1200

TOPIC TAGS: monolithic solid, polyacrylonitrile, pressure, temperature, plasticization of polymer

ABSTRACT: The present investigation was undertaken to study the formation of transparent monolithic solids from polymeric substances with rigid chains and vitrification temperatures near or above their decomposition margin. Polyacrylonitrile as such (or plasticized by vapors of dimethylformamide) was subjected to various pressures at a temperature range of 50-200C. When the state of transparency (estimated by visual means) had been reached, the corresponding pressure and temperature were recorded and plotted as log P - T. It was found that transparency in the solid state can be achieved at 140C, providing log P is 3.5, while at atmospheric pressure polyacrylonitrile would decompose at 250C before any

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ACCESSION NR: AP3004706

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vitreous state had been reached. When subjected to compression at a temperature above 150C, powdered polyacrylonitrile loses its solubility in dimethylformamide, except when brought to a boil. An investigation of the properties of an acrylonitrile-vinyl acetate copolymer at temperatures ranging from 110-250C and pressures of 160-1000 kg/cm² revealed the existence of a minimum in the similarly obtained curves, the temperature of which corresponds to the one at which the copolymer loses its solubility in dimethylformamide. Orig. art. has: 2 charts.

ASSOCIATION: none

SUBMITTED: 27Jan62

DATE ACQ: 28Aug63

ENCL: 00

SUB CODE: CH

NO REF SOV: 004

OTHER: 005

Card 2/2

ARZHAKOV, S.A.; RYLOV, Ye.Ye.; SLONIMSKIY, G.L.; SHTARKMAN, B.P.

Role of thermal degradation in the compression molding of
monolithic solids from powdered polymethyl methacrylate.
Vysokom. soed. 5 no.10:1513-1519 0 '63. (MIRA 17:1)

L-24119-65 EPF(c)/EWP(j)/EWT(m)/T Pc-4/Pr-4 RM
ACCESSION NR: AP5003827 S/0190/65/007/001/0050/0054

AUTHOR: Bort, D. N.; Rylov, Ye. Ye.; Okladnov, N. A.; Shtarkman,
B. P.; Kargin, V. A.

TITLE: Morphology of bulk poly(vinyl chloride)

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 1, 1965, 50-54

TOPIC TAGS: polymerization, bulk poly(vinyl chloride), supramolecular structure

ABSTRACT: The formation of supramolecular structures (morphological forms) in the course of polymerization and their development with an increasing degree of conversion has been studied during bulk polymerization of poly(vinyl chloride). The polymerization was conducted at 18—22C in ampoules which made sampling possible at any stage of polymerization. The structure of the sample and the particle size were determined by electron microscopy. Depending on the degree of conversion, the polymerization product was an opalescent liquid (traces of polymer), a white suspension (conversion, 1—25%), a gel (conversion, 25—60%), or a solid block (conversion, 60—90%). Electron micrographs

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ACCESSION NR: AP5003827

indicate that the polymer is formed in spherical particles of approximately equal size. During polymerization the concentration of the particles remains constant, but the particles grow as a result of polymer formation on their surface and aggregate into a solid block. At first the block is not transparent because of the presence of a system of pores between the spherical particles. Further polymerization of the monomer between these particles results in the formation of a transparent region at the bottom of the block. The first supramolecular structures appear when the concentration of macromolecules attains a critical value, at which time their association sets in. Orig. art. has: 7 figures. [B0]

ASSOCIATION: none

SUBMITTED: 02Mar64

ENCL: 00

SUB CODE: OC,GC

NO REF SOV: 003

OTHER: 000

ATD PRESS: 3176

Card 2/2

3,1900 (1538,1057)

25195

S/056/61/040/006/016/031
B108/B209

AUTHOR: Rylov, Yu. A.

TITLE: The singularity of the Schwarzschild solution of the gravitation equation

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 40, no. 6, 1961, 1755 - 1757

TEXT: It is shown that the singularity on the gravitational radius in the Schwarzschild solution of gravitation equations can be completely removed by a proper choice of the coordinates. The Schwarzschild solution of the Einstein gravitation equation in the form of

$$ds^2 = \left(1 - \frac{1}{r}\right) dt^2 - \left(1 - \frac{1}{r}\right)^{-1} dr^2 - r^2 d\sigma^2, \quad d\sigma^2 = d\vartheta^2 + \sin^2 \vartheta \cdot d\varphi^2 \quad (1) \text{ has,}$$

besides the singularity at $r = 0$, also one at $r = 1$, if the units are chosen so that $c = 1$ and $\alpha = 2\text{km}/c^2 = 1$. The author gives some examples of coordinate systems in which the above-mentioned singularity does not

exist. The transformation $\tau = t - \int \frac{r dr}{(r-1)f(r)}$, $\xi = \int \frac{r f(r)}{r-1} dr - t$, (3) is

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introduced; $f(r)$ satisfies the conditions $f'(1) \neq 0$, $f^2(1) = 1$, $f^2(r) > 1$ for $r > 1$, $f^2(r) < 1$ for $r < 1$. In these coordinates, one obtains

$$ds^2 = \frac{r-1}{r(1-f^2(r))} \left(d\tau^2 - \frac{d\xi^2}{f^2(r)} \right) - r^2 d\sigma^2. \quad (4), \text{ and, for the special case of } f(r) = r^2 - r + 1, \text{ this becomes } \tau = t - \frac{1}{2} \ln \frac{(r-1)^2}{r^2 - r + 1} + \frac{1}{\sqrt{3}} \arctg \left[\frac{2}{\sqrt{3}} \left(r - \frac{1}{2} \right) \right] \quad (5).$$

Introducing $\varphi = (3\xi)^{1/3}$, Eq. (4), $\xi = r^3/3 + r + \ln|r-1| - t$.

assumes the form $ds^2 = \frac{(\psi^2 - \psi + 1)^2}{(\psi^3 - \psi + 2)\psi^2} d\tau^2 - \frac{\rho^2 d\rho^2}{(\psi^3 - \psi + 2)\psi^2} - \psi^2 d\sigma^2, \quad (6),$ where

$\psi = \psi(\xi^3/3 + \tau)$. The form of the function $\psi(y)$ is determined by the

$$\text{equation } y = \frac{\psi^3}{3} + \psi + \frac{1}{2} \ln(\psi^2 - \psi + 1) + \frac{1}{\sqrt{3}} \arctg \left[\frac{2}{\sqrt{3}} \left(\psi - \frac{1}{2} \right) \right]. \quad (7). \text{ For } \varphi \rightarrow \infty,$$

this system coincides with the Schwarzschild coordinate system but has no singularities on the gravitational radius. Setting $f(r) = \sqrt{r}$, one obtains

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$$x^1 = \frac{2\sqrt{r}}{3}(r+3) + \ln \left| \frac{\sqrt{r}-1}{\sqrt{r}+1} \right| - t, \quad x^0 = t - 2\sqrt{r} - \ln \left| \frac{\sqrt{r}-1}{\sqrt{r}+1} \right|; \quad (9)$$

$$ds^2 = (dx^0)^2 - \left[\frac{3}{2}(x^1 + x^0) \right]^{-1/2} (dx^1)^2 - \left[\frac{3}{2}(x^1 + x^0) \right]^{1/2} ds^2; \quad (10)$$

$$r = \left[\frac{3}{2}(x^1 + x^0) \right]^{1/2},$$

$$t = x^0 + 2 \left[\frac{3}{2}(x^1 + x^0) \right]^{1/2} + \ln \left| \frac{[3(x^1 + x^0)/2]^{1/2} - 1}{[3(x^1 + x^0)/2]^{1/2} + 1} \right|. \quad (11)$$

The coordinate system (x^0, x^1) has the following properties: The time coordinate coincides with coordinate line x^1 , $\vartheta, \varphi = \text{const}$; 2) the coordinate system (x^0, x^1) may be explained to be a coordinate system undergoing free fall. The re-transformation of (x^0, x^1) into (r, t) is unique, as may be seen from (11). The transformation of (r, t) into (x^0, x^1) has two values, according to the two values of $\sqrt{r}$. This may be

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The singularity of...

illustrated by a point "falling to" or "flying away" from the center and corresponding to the point (r, t) . Professor Ya. P. Terletskiy is thanked for his interest in this work.

There are 4 references: 2 Soviet-bloc and 2 non-Soviet-bloc. The two references to English-language publications read as follows: D. Finkelstein, Phys. Rev., 110, 965, 1958; C. Fronsdal, Phys. Rev., 116, 778, 1959.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: January 3, 1961

Card 4/4

RYLOV, Yu.A.

Feasibility of describing a Riemannian space by means of
a finite interval. Izv. vys.ucheb. zav.; mat. no.3:131-142
'62. (MIRA 15:9)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Spaces, Generalized)

41557

S/188/62/000/005/008/008
B102/B108

76160

AUTHOR: Rylov, Yu. A.

TITLE: Relativistic localization of the gravitational field

PERIODICAL: Moscow. Universitet. Vestnik. Seriya III. Fizika,
astronomiya, no. 5, 1962, 70 - 80

TEXT: Obviously a localization of the field of gravity is possible if the Einstein principle of equivalence is abandoned (cf. Phys. Rev. 57, 147, 1940). Here it is sought to achieve such localization without violating this principle. First it is shown that the problem can be solved by way of a transition from the Riemannian space to the Euclidean without violating this principle. A one-to-one mapping of the curved space-time continuum V_4 onto the continuum of a fourdimensional Euclidean space E_x is possible under certain conditions. V_4 and E_x have a common reference point x' whose coordinates determine E_x . The geodetic lines of V_4 passing through x' are mapped as straight lines in E_x . The angles formed

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Relativistic localization of the...

S/168/62/000/005/008/008
B102/B108

by the geodetics in x' remain unchanged, as do the intervals $\overline{Mx'}$ in V_4 and $\overline{M^*x'}$ in E_x , measured along the geodetics. The geodetics starting from x' must not intersect. In order to obey the principle of equivalence, it is assumed that the Riemannian space is not a set of infinitesimal Euclidean spaces but a set of finitely large Euclidean spaces. The gravitational field is described by tensor potentials in two-dimensional formalism, so that the gravitational potentials depend only on x' and on the running coordinate x . Integral laws of conservation of energy-momentum and of angular momentum can be derived. In contrast to the data of Möller (Ann. Phys. USA, 4, 347, 1958, 12, 118, 1961) the energy-momentum tensor, however, is a relativistic tensor (depending on x and x') and also a true tensor, not a quasitensor. The applicability of the relations obtained here seems confined to cases where the gravitational radius is much smaller than the dimensions of the system.

ASSOCIATION: Kafedra statisticheskoy fiziki i mekhaniki (Department of Statistical Physics and Mechanics)

SUBMITTED: January 22, 1962

Card 2/2

S/188/62/000/006/009/016
B125/B104

AUTHOR: Rylov, Yu. A.

TITLE: On the relative energy of a static centrally symmetric gravitational field

PERIODICAL: Moscow. Universitet. Vestnik, Seriya. III. Fizika, astronomiya, no. 6, 1962, 45 - 55

TEXT: Energy and momentum of a static centrally symmetric gravitational field with respect to the center of symmetry of the system are calculated by a method devised by the author (Yu. A. Rylov. Vestn. Mosk. un-ta, ser. fiziki, astronomii, no. 5, 1962) from the relativistic field of gravitation $Q_{\beta\gamma}^{\alpha} = g_{\beta\gamma}^{\alpha}(x) - \Gamma_{\beta\gamma}^{\alpha}(x, x')$ (1). $\gamma_{\beta\gamma}^{\alpha}$ are the Christoffel symbols in space-time V_4 in a certain system of coordinates K , $\Gamma_{\beta\gamma}^{\alpha}(x, x')$ are the Christoffel symbols in plane space E_x . These two spaces are tangent at the point x' of the coordinate system K_x . This relativistic field of gravitation is a two-point tensor describing the gravitational field at Card 1/4

On the relative energy ...

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B125/B104

the point x with reference to the field at the point x' . First the world function corresponding to the live element $ds^2 = e^{\nu} dt^2 - r^2(d\theta^2 + \sin^2\theta dy^2) - e^{\lambda} dr^2$ (11) is calculated, where $e^{\nu} = 1 - 2\xi$, $e^{\lambda} = (1 - 2\xi)^{-1}$, $\xi = \alpha/2r$. α is the radius of gravitation, matter is assumed to be in the region $r < R$. Then the relativistic gravitational field

$$Q_{03}^0 = -\frac{2\xi}{r} \left(d - p + q - \frac{3}{2} \right), \quad Q_{13}^1 = \frac{\xi}{r} (d + 2p - 1),$$

$$Q_{23}^2 = \frac{\xi}{r} (d + 2p - 1), \quad Q_{00}^3 = -\frac{h' - 1}{r} \left(1 + N\xi - \frac{h'}{h' - 1} \xi \right), \quad (28)$$

$$Q_{11}^3 = \xi (d + 2p + 1) r \sin^2 \theta, \quad Q_{22}^3 = r \xi (d + 2p + 1).$$

is calculated by means of the transfer tensor

$$P_{\alpha}^{\beta} = -g_{\alpha\sigma}(x') G^{\sigma\beta}, \quad P_{\beta}^{\alpha'} = -g^{\alpha'\sigma}(x') G_{\sigma\beta},$$

(9). Finally, the four-momentum

$$P_{\beta'} = \lim_{r_0 \rightarrow \infty} \int_0^{2\pi} d\varphi \int_0^\pi \Lambda H_{\beta'}^{\alpha\beta} r_0^2 \sin \theta d\theta.$$

(29) is obtained by means of

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$$P_{\beta} = \int H_{\beta}^{01} \sqrt{-D_x} d\sigma_{01} = \int \Lambda H_{\beta}^{01} \sqrt{-g} d\sigma_{01}, \quad (5) \text{ and}$$

$$\Lambda H_{\beta}^{01} = \frac{1}{2\pi} (\delta_{\beta}^0 (Q_{\beta}^{01} - Q_{\beta}^{02}) - \delta_{\beta}^1 (Q_{\beta}^{01} - Q_{\beta}^{02}) + Q_{\beta}^{10} - Q_{\beta}^{20}), \quad (6), \text{ where}$$

$$H_{\beta}^{03} = \frac{1}{k'} H_{\beta}^{03},$$

$$H_{\beta}^{03} = -\frac{\sin \varphi}{r \sin \theta} H_{\beta}^{03} + \frac{\cos \theta \cos \varphi}{r} H_{\beta}^{03} + \sin \theta \cos \varphi H_{\beta}^{03},$$

$$H_{\beta}^{03} = \frac{\cos \varphi}{r \sin \theta} H_{\beta}^{03} + \frac{\cos \theta \sin \varphi}{r} H_{\beta}^{03} + \sin \theta \sin \varphi H_{\beta}^{03},$$

$$H_{\beta}^{03} = -\frac{\sin \theta}{r} H_{\beta}^{03} + \cos \theta H_{\beta}^{03}. \quad (30).$$

(5) is integrated over a sphere of radius r at constant t ; therefore it is only necessary to know the asymptotic behavior of $Q_{\beta}^{01}(\vec{r}, t, \vec{r}', t')$ at $t-t'=0$, $r'=0$, $r \rightarrow \infty$. It is shown that the energy of the gravitational field in Card 3/4

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relation to the point $x' = 0$ is negative.

ASSOCIATION: Kafedra statisticheskoy fiziki i mekhaniki (Department of
Statistical Physics and Mechanics)

SUBMITTED: April 2, 1962

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Card 4/4

RYLOV, Yu.A.

On the relative localization of the gravitational field.
Vest. Mosk. un. Ser.3: Fiz., astr. 17 no.5:70-80 S-O '62. (MIRA 15:10)

1. Kafedra statisticheskoy fiziki i mekhaniki Moskovskogo universiteta.
(Gravitation) (Relativity (Physics))

RYLOV, Yu.A.

On the relative energy of a static centrally symmetrical
gravitational field. Vest.Mosk.un. Ser.3:Fiz.,astron. 17
no.6:45-55 N-E '62.

(MIRA 15:12)

1. Kafedra statisticheskoy fiziki i mekhaniki Moskovskogo
universiteta.

(Relativity (Physics)) (Field theory) (Gravitation)

38610
S/020/62/144/005/006/017
B125/B104

24.4600

AUTHOR: Rylov, Yu. A.

TITLE: Relative localization of the gravitational field

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 5, 1962,
1030-1033

TEXT: In the present invariant two-point procedure, the tensor $Q_{\beta\gamma}^{\alpha} = \gamma_{\beta\gamma}^{\alpha} - \Gamma_{\beta\gamma}^{\alpha}$ describes the gravitational field at the point x in relation to some point x' in the space-time continuum V_4 . Such a localization is not inconsistent with the principle of equivalence. $\gamma_{\beta\gamma}^{\alpha}$ and $\Gamma_{\beta\gamma}^{\alpha}$ are respectively Christoffel's symbols in the space V_4 with the coordinate system K and in the four-dimensional Euclidean space E_x in the coordinate system K_x . At the point x' , E_x is tangent to V_4 . $Q_{\beta\gamma}^{\alpha} = 0$ is a necessary and sufficient condition for the space V_4 being

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Euclidean. By introducing a continuum of Euclidean spaces E_x , the principle of equivalence is reconciled with the transition from the Riemannian to the Euclidean space. By applying the principle of variation to the action one obtains the equation

$$\int_{\Omega} \frac{\partial}{\partial x^{\alpha}} (V \sqrt{-D_x} \Theta_{\beta}^{\alpha}) d^4x = \oint_{\Sigma} \Theta_{\beta}^{\alpha} V \sqrt{-D_x} dS_{\alpha} = \oint_{\Sigma} \Lambda \Theta_{\beta}^{\alpha} V \sqrt{-g} dS_{\alpha}; \quad (14)$$

for the motion of matter and

$$\begin{aligned} \Lambda \Theta_{\beta}^{\alpha} &= - \frac{1}{2\kappa} \left(\frac{\partial L_g}{\partial g_{\gamma\delta}} g_{\gamma\delta} - \delta_{\beta}^{\alpha} L_g \right) = \\ &= - \frac{1}{2\kappa} \{ g^{\mu\nu} (g^{\alpha\delta} - g^{\mu\delta} g^{\alpha\nu}) (Q_{\alpha\nu\beta} Q_{\delta\mu\rho} + Q_{\nu\alpha\beta} Q_{\delta\mu\rho} + Q_{\alpha\mu\beta} Q_{\delta\nu\rho}) - \delta_{\beta}^{\alpha} L_g \}. \end{aligned} \quad (16)$$

for the gravitational portion of the energy-momentum tensor. For a static, centrally symmetric field in a coordinate system with the linear element $ds^2 = e^{\nu} dt^2 - r^2(d\vartheta^2 + \sin^2\vartheta d\varphi^2) - e^{\nu} dr^2$, where $\nu = \nu(r)$ and $c = 1$,

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the energy-momentum vector calculated for the point $x' = 0$ ($t' = 0$,

$r' = 0$) reads $P_{0i} = 4\pi\epsilon^{(0)} \int_0^\infty t_0^0 r^2 dr$. The spatial components of P_β are

equal to zero. Owing to its relative localization, the gravitational field becomes equivalent to other fields. Theorems of conservation hold for the relative quantities of energy, momentum, and angular momentum. Professor Ya. P. Terletskiy and A. N. Gordeyev are thanked for discussions.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: February 6, 1962, by N. N. Bogolyubov, Academician

SUBMITTED: January 25, 1962

Card 3/3

RYLOV, Yu.A.

Universal six-dimensional space of events. Vest. Mosk. un. Ser. 3:
Fiz., astron. 18 no.6:23-34 N-D '63. (MIRA 17:2)

1. Kafedra statisticheskoy fiziki i mekhaniki Moskovskogo universiteta.

ACCESSION NR: AP3001773

S/0188/63/000/003/0055/0065

AUTHOR: Rylov, Yu. A.

TITLE: Normal coordinates and the general principle of relativity

SOURCE: Moscow. Universitet. Vestnik. Seriya 3. Fizika, astronomiya, no. 3, 1963, 55-65

TOPIC TAGS: general relativity, general relativity principle, metrical tensor, metrical tensor invariance, gravitational field theory, Christoffel bracket, Lorentz group

ABSTRACT: In the author's earlier papers it was shown that the gravitational field can be described not by the Christoffel brackets but with the aid of a "relative gravitational field," which is the gravitational field at a point X relative to an arbitrary reference point X' where the gravitational field is zero. In this article the technique of the relative gravitational field is utilized to derive the necessary conditions for normal coordinate systems and to formulate the general principle of relativity in a form analogous to the principle of special relativity. That is, it is shown that the principle of general relativity can be formulated as the invariance of the metrical tensor of a four-dimensional space $E_{X'}$ tangential to spacetime at a point X' , relative to a 14-parameter group of transformations. This principle is

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ACCESSION NR: AP3001773

more general than the special relativity, because the group of normal transformations corresponding to it has larger dimensions than the Lorentz group, the latter being a subgroup of normal transformations corresponding to the principle of special relativity. In addition, in this formulation the principle of special relativity is a special case of the principle of general relativity. It is noted that the author's point of view is a compromise between those of V. A. Fock and Einstein because he recognizes the principle of general relativity and the existence of a class of privileged coordinates with either one of these being specified by the other. Orig. art. has: 36 formulas.

ASSOCIATION: Kafedra statisticheskoy fiziki i mekhaniki (Department of Statistical Physics and Mechanics)

SUBMITTED: 17Sep62

DATE ACQ: 09Jul63

ENCL: 00

SUB CODE: PH

NO REF SOV: 008

OTHER: 002

Card 2/2

ACCESSION NR: AP4041433

S/0188/64/000/003/0003/0014

AUTHOR: Ry*lov, Yu. A.

TITLE: Semi-integral spin particles in universal six-dimensional space

SOURCE: Moscow. Universitet. Vestnik. Seriya 3 Fizika, astronomiya, no. 3, 1964, 3-14

TOPIC TAGS: semi-integral spin, six dimensional space, charge conjugation, spinor, antiparticle, charged particle motion, barion, neutrino, electron, muon, fermion

ABSTRACT: The author refers to a previous paper of his ("Vestn. Mosk. un-ta", ser. fiziki, astronomii, no. 6, 23, 1963) in which the concept of six-dimensional universal space was introduced and in which it was demonstrated that the hypothesis of the six-dimensionality of the real space of events offers a number of advantages. In particular, the motion of the charged particle in the electromagnetic and gravitational fields may be regarded as the movement of a free particle in curved 6-space. The presence of elementary electrical and barion charges and the multiplicity of these charges with respect to the elementary are easily explained as properties of 6-space. Finally, the "naked" neutrino, electron, muon and barion may be regarded as different states of a single $1/2$ -

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ACCESSION NR: AP4041433

spin particle (6-fermion), differing in terms of their electrical and baryon charges. In the present article, the author considers the spinor equation in 6-space and studies some of its properties. The equation for the metric tensor of 6-space is given. Only coordinate systems of the type

$$g_{ik} = \eta_{ik} = e_i \delta_{ik}, \quad e_0 = 1, \quad e_1 = e_2 = e_3 = -1, \quad (1)$$

$$u = 0,$$

are used throughout. The author notes that in 6-space, as in conventional space, the concept of the antiparticle (as holes against a background of negative-energy particles) can be introduced. For this purpose, the author has introduced the concept of the conjugation or charge conjugation

$$W^c = CW^{-T} \quad (2)$$

where T indicates transposition and the matrix C is defined by the ratios

$$C^{-1} \mu^A C = -\mu^A, \quad C^+ C = 1 \quad (3)$$

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The author takes the position that the 6-fermion is a neutral particle; that is, the particle coincides with the antiparticle. Here the words "particle" and antiparticle" are used, not in their normal sense, but in the sense of transformation. For example, an electron and positron are particle and antiparticle in the conventional sense of the word, but from the point of view of 6-space they are two different states of the 6-fermion, differing in the signs of the pulses p_5 (electrical charges); however, both these states are described by spinor W and are not particle and antiparticle in the sense of eq. (1). They might rather be termed, according to the author, the "state" and "antistate" of the 6-fermion. The formal difference between the two (that is, between particle and antiparticle in the sense of 4-dimensional space) is explained. The barion states of the 6-fermion are considered, along with transformations of six-dimensional charge conjugation and particle-antiparticle transformations. It is shown that the introduction of spinors in 6-space makes it possible to consider all elementary particles as different states of a single six-dimensional fermion field, which is very convenient. The author expresses the hope that the quantizing of this field will make it possible to obtain a satisfactory mass spectrum for elementary particles as well as a unified picture of their interrelation, analogous to that presently available for atoms. "The author is indebted to Prof. Ya. P. Terletskiy for his valuable comments." Orig. art. has: 30 formulas.

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ACCESSION NR: AP4041433

ASSOCIATION: Kafedra teoreticheskoy fiziki Moskovskogo gosudarstvennogo universiteta
(Department of Theoretical Physics, Moscow State University)

SUBMITTED: 25May63

SUB CODE: GP

NO REF SOV: 007

ENCL: 00

OTHER: 017

4/4

Card

L 20951-66 EWT(1)/EWT(m)/EPF(n)-2/T IJP(c)

ACC NR: AP6005874

SOURCE CODE: UR/0367/65/002/004/0691/0704

AUTHORS: Rylov, Yu. A.; Skuridin, G. A.

ORG: Matematics Institute, Academy of Sciences SSSR (Matematicheskii institut Akademii nauk SSSR)

TITLE: Contribution to the theory of the ionization calorimeter

SOURCE: Yadernaya fizika, v. 2, no. 4, 1965, 691-704

TOPIC TAGS: ionization, calorimetry, cosmic ray particle, cosmic ray measurement, elementary particle, detection probability, particle detector, measurement

ABSTRACT: The authors investigate the accuracy with which the energy of superhigh energy primary cosmic-ray particles can be determined by means of an ionization calorimeter. The calorimeter itself was proposed by N. L. Grigorov et al. (Kosmicheskiye issledovaniya [Cosmic Research] v. 2, no. 5, 724, 1964). The accuracy estimate is based on the evaluation of the distribution of the ionization produced in each row of detectors comprising the ionization calorimeter by a pri-

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L 20951-66

ACC NR: AP6005874

mary particle with specified energy E_0 , ranging from 10^{11} to 10^{15} eV.

It is shown that the problem reduces to a system of integro-differential equations for the mean number of the different types of particles in the cosmic rays, expressed in terms of the conditional probability density of the detector readings, which in turn are described in terms of elementary quantities such as the average number of particles at a given depth, the fluctuation in the number of particles, and the correlation between the numbers of particles at different depths. It is concluded that specified concrete values of the accuracy can be obtained if sufficient information is available on the interaction of the shower particles with the absorber, and if the general expression for the average number of particles can be solved in the concrete case. The simpler case of a normal ionization distribution, restricted to ionization moments of order not higher than the second, is considered in detail. Authors thank N. L. Grigorov, N. M. Gerasimov, I. L. Rozental, and I. A. Savenko for active participation during all stages of the work. Orig. art. has: 41 formulas.

SUB CODE: 20/ SUBM DATE: 05Feb65/ ORIG REF: 004/ OTH REF: 005

Card

2/2 mgs

AUTHOR: Rylov, Yu.P., Engineer.

110-6-8/24

TITLE: Vibration of standard series induction motors.
(Vibratsii asinkhrononnykh elektrodvigateley edinoy serii.)

PERIODICAL: "Vestnik Elektropromyshlennosti" (Journal of the Electrical Industry) 1957, Vol.28, No.6.pp.27-31 (U.S.S.R.)

ABSTRACT: It has long been necessary to standardise the vibration of electrical machines. The importance of this work was mentioned by the journal, 'Elektricheskiye Stantsii' in referring to an article by L.Z. Rubinshteyn and L.Ya. Stanislavskiy in 1940. This article considers a number of questions associated with vibration measurements on standard series induction motors.

Vibration may be measured in a number of ways. For comparison, Fig. 1 gives oscillograms of the vibration on the bearing housing of a motor type AON-31-4 (AON 31-4) bolted on to a foundation block with unbalance of the rotor equal to 40 g/cm in the plane of the bearing housing. The curves illustrate vibration displacement, vibration velocity and vibration acceleration. A straight line relationship is found to exist between vibration measurements made on a motor bolted to a foundation and

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Vibration of standard series induction motors. (Cont.)
110-6-8/24

the out-of-balance of the rotor or fan. Data of this kind for motors of frame sizes 3 and 4 are given in Figs. 2 and 3. Motors of a given frame size but of different length display different relationships between the magnitude of vibration and the unbalance of the rotor (Fig. 4). Measurements were made of vibration of motors not fixed to foundations and also on all kinds of spring mountings and rubber dampers and always the magnitude of vibration was proportional to the unbalance of the rotor. Fig. 5 shows the correlation between the magnitude of the vibrations and the rotor unbalance for motors type A51-4 and Fig. 6 similar correlation for motors A61-2 when bolted and not bolted down. It follows that it does not much matter whether the motor is bolted down or not when the vibration measurements are made provided that the practice is constant. Moreover, if each rotor is dynamically balanced then measurements of vibration at the manufacturers' works will in the long run only repeat the balance inspection.

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By comparison with out-of-balance forces vibrations caused by magnetic forces and bearings are of high-

Vibration of standard series induction motors. (Cont.)
110-6-8/24

frequency and low amplitude and generally have little effect on the overall vibration.

Table 1 gives mean arithmetic values of vibration for several types of electric motor-tested at no-load without bolting down. Table 2 gives similar results on motors bolted down. Vibration measurements were made at the following factories: ZVI, KhEMZ, KhELZ, YaEMZ and Vol'ta in 1955 and 1956.

Some factories produce motors without dynamically balancing the rotors so that the initial unbalance of the rotors may be very great.

Fig. 5 shows distribution curves of the unbalance of rotors for motor type A1-51-4 of the Vol'ta Works. Depending on the size and construction, the out-of-balance ranges from 30 g/cm on a motor of the first length on Number 3 frame size to 1 900 g/cm on the 7th frame size. This shows an urgent need for dynamic balancing to the limits given in Table 3. Methods of dealing with unbalance must be considered in the initial design of the rotors. Table 4 shows the relationship between different sources of initial unbalance of rotors calculated from limiting tolerances on drawings

Card 3/4

Vibration of standard series induction motors. (Cont.)
110-6-8/24

and practical variations observed in rotor dimensions.

More consideration should also be given to methods of balancing finished rotors. At present there is no standard way of doing this and different factories use different procedures. It should be mentioned that the method of drilling holes in the rotor steel, which is sometimes used, is not always capable of securing balance. It would be advisable to follow the example of the Siemens Works and to make special provision for balancing as by providing special balancing bars. Similar procedures should be adopted for fans.

Card 4/4

There are 9 figures, 4 tables and 2 references, 1 of which is Slavic.

ASSOCIATION: Scientific Research Institute, Ministry of the Electrotechnical Industry. (NII MEP)

SUBMITTED: February 9, 1957.

AVAILABLE:

diff
RILEY, Ya. P., *Land Tech Sci* → "Study of vibrations of short-circuited asynchronous electric engines." Dec, 1955. 12 pp with graphs (Scientific Research Inst of Electrical Engineering Industry), 150 copies (RI, 27-59, 121)

- 38 -

SOV/110-59-5-17/25

AUTHOR: Rylov, Yu.P., Engineer

TITLE: An Investigation of Vibrations in Induction Motors
Caused by Magnetic Forces (Issledovaniye vibratsiy
asinkhronnykh dvigateley vyzvannykh magnitnymi silami)

PERIODICAL: Vestnik elektropromyshlennosti, 1959, Nr 5, pp 62-66 (USSR)

ABSTRACT: Vibrations of induction motors caused by magnetic forces are important because they lead to noise and to irregularities in the torque curve during starting. Quite a number of works has been published on the subject but none gives formulae suitable for making calculations nor any method of determining the most dangerous magnetic vibrating forces. Moreover, existing methods of calculation make no allowance for skewing of the slots, which is important. This article analyses magnetic vibrational forces with allowance for the presence of teeth on the rotor and stator, the non-linear reluctance of the steel, the skew of the slots, the damping effect of the short-circuited rotor winding, possible eccentricity of the rotor and it also gives the results of vibration tests on an electric motor. Interaction between the magnetic fields of the rotor and stator sets

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SOV/110-59-5-17/25

An Investigation of Vibrations in Induction Motors Caused by
Magnetic Forces

up a useful torque accompanied by parasitic tangential and radial forces. These impair the starting characteristics of the motor and cause it to vibrate. The value, distribution and rate of rotation of all the magnetic forces acting between the stator and rotor may be determined from expressions (1). Assuming that the field in the air gap is plane-parallel and the vector of magnetic induction is perpendicular to the surfaces of the rotor and stator, the magnetic induction can be represented by Eq (2). For simplicity of analysis the resultant magneto-motive force is given by Eq (3). The various terms that enter into Eq (1) and (2) are then successively determined and the factors already mentioned are taken into account. It is then possible to determine the amplitudes, speeds of rotation and orders of all harmonics of the magnetic radial and tangential forces acting in the induction motor. However, a detailed analysis of the equations is not given and only

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An Investigation of Vibrations in Induction Motors Caused by
Magnetic Forces

some main conclusions are drawn. The largest magnetic forces of the lower orders are formed by interaction between various rotor and stator harmonics. The amplitudes of specific radial and tangential forces due to interaction of rotor-tooth-frequency harmonics with stator harmonics of tooth and non-tooth frequency may be calculated from formulae (7) and (8). Expression (11) is then derived for the frequency of oscillation of the stator with allowance for saturation of the steel and eccentricity of the rotor. From analysis of the equations it is concluded that the presence of the teeth in the rotor and stator alters only the amplitude and not the frequency and order of the magnetic forces. Skewing the slots redistributes the magnetic forces along the length of the machine but hardly alters their magnitude. When the axis of inertia of the rotor is displaced relative to the stator bore, induction harmonics appear which can produce uni-directional high-frequency forces despite the use of an even number

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An Investigation of Vibrations in Induction Motors Caused by
Magnetic Forces

of slots. A formula is given for the magnitude of the resultant force. The approximate amplitude of bending oscillations of the stator of any given order, when the rotor slots are skewed, may be determined from expression (12). It will be seen from this expression that skewing reduces vibration and noise not because the specific radial forces are diminished, but because they are redistributed in such a way that the resultant force for bending oscillations is reduced. Expressions (11) and (12) may be used to determine approximately effective values of vibrational acceleration of the oscillations; see expression (13a), and of the sound output on the surface of the stator steel, see expression (13b). When the rotor is eccentric the vibration and noise increase both because the mean permeance of the air gap increases and because new harmonics appear. The formulae for calculating these incremental components are given in expressions (14a) and (14b); they are of the

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An Investigation of Vibrations in Induction Motors Caused by
Magnetic Forces

general form shown graphically in Fig 2. The influence of rotor eccentricity on vibration and noise was checked experimentally on a special motor type AOL31-4. Graduated eccentric bearing sleeves were used so that the eccentricity could be adjusted; the fan was removed and the rolling bearings were replaced by plain bearings. Curves of the frequency spectrum of vibrational acceleration of the rotor surface with various eccentricities are given in Fig 3. It will be seen that, when the axial displacement is 0.7 of the air gap, individual vibration components increase by up to 22 decibels as compared with their value when the rotor is central. The relationship between the general level of noise intensity and eccentricity is plotted in Fig 5 and shows that although small eccentricities add little to the overall noise level, larger values have a marked effect. The relationship between motor vibration and voltage is shown graphically in Fig 6. Calculations of change in noise level using Eq (15) are in good agreement with experimental results. It is

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SOV/110-59-5-17/25

An Investigation of Vibrations in Induction Motors Caused by
Magnetic Forces

concluded that theoretical analysis of the magnetic forces with allowance for various factors which were formerly neglected has made it possible to give a more complete formulation of the causes of vibrating magnetic forces. There are 6 figures and 12 references, 5 of which are Soviet, 5 German, 1 Swedish and 1 English.

SUBMITTED: 28th January 1959

Card 6/6

POPKOVA, N.F. [deceased]; RYLOVA, L I.; BEKLEMISHEVA, Ye.D.; SHORSHER,
S.B.; SHKREEKO, V.L.; POKRCVSKAYA, Ye. A.

Characteristics of dysentery caused by Stutzer-Schmitz shigella.
Zhur. mikrobiol., epid. i immu. 43 no. 1:31-33 Ja '66
(MIRA 19:1)

1. Yaroslavskiy meditsinskiy ins'tut, Rybinskaya gorodskaya
i Yaroslavskaya oblastnaya sanitarno-epidemiologicheskaya
stantsiya. Submitted January 4, 1965.

RYLOVA, A.; ZHUBR, Ye., povar, udarnik kommunisticheskogo truda

Railroad workers to get excellent service! Obshchestv. pit. no. 2:20-21
F '63. (MIRA 16:4)

1. Zaveduyushchaya proizvodstvom filiala stolovoy No. 11, Leningrad-Moskovskaya tovarnaya stantsiya Oktyabr'skoy zheleznoy dorogi (for Rylova).
 2. Stolovaya No. 4 otдела rabochego snabzheniya Leningrad-Vitebskogo otdeleniya Oktyabr'skoy zheleznoy dorogi (for Zhubr).
- (Restaurants, lunchrooms, etc.)

RYLOVA, G.I., dotsent; MOLDAVSKAYA, B.I., assistant; DMITRIYEVA, A.M.,
assistant

A case of sarcoidosis (Besnier-Boeck-Schaumann) with lesions of the
skin, lungs and bones. Vest.rent. 1 rad. 34 no.4:79 J1-Ag '59.

(MIRA 12:12)

1. Iz kafedry kozhno-venericheskikh bolezney (zav. - prof. P.I. Iye-
rusalimskiy) i kafedry rentgenologii i radiologii (zav. - dotsent
G.I. Rylova) Permskogo meditsinskogo instituta (dir. - prof. I.I.
Kositsyn).

(SARCOIDOSIS radiography)

(SKIN pathol.)

(LUNGS pathol.)

(BONE & BONES pathol.)

RYLOVA, G.I.

29341 K voprosu of rentgenodiagnostiki ognestrel'nykh povrezhdeniy nizhney chelyusti.
Trudy Molotovsk. Gos. stomatol. in-ta. vyp. 8, 1949, S. 55-58

SO: Letopisi' Zhurnal'nykh Statey, Vol. 49, M_oskov, 1949

RYLOVA, G. S.

USSR/Medicine - Medical Societies
Medicine - Surgery

May 48

"Minutes of the Meeting of the Leningrad Society of Surgeons and Orthopedists"
4 1/3 pp

"Best Khirurgii" Vol LXVIII, No 5

The 251st meeting opened 3 Mar 48. M. Kuzlik was chairman and Z. A. Lyandres secretary. Several reports discussed included G. S. Rylova's "Treatment of Ulcers of the Extremities by Paravertebral Intracutaneous Injections of Novocain."

57/49T72

Rylova, L.I.

KHANMAMEDOV, K.M.; MAIEDOV, B.K.; RYLOVA, L.I.

Studying moisture absorption and swelling of wild pistachio wood
(Caucasian "bakkaut"). Izv. AN Azerb.SSR no.9:83-93 S '57.

(MLRA 10:9)

(Azerbaijan--Pistachio) (Wood--Moisture)

RYLOV, N.N., inzh.; RYLOVA, L.P., inzh.

Combined nomograms for calculating pneumatic conveyor systems.
Der. prom. 13 no.6:11-13 Je '64. (MIRA 17:6)

PROCESSES AND PROPERTIES INDEX																									
COMMON LITERATURE													METALLURGICAL LITERATURE CLASSIFICATION												
Change in the oxygen consumption, the pulse rate and the period of recovery in relation to the energy of the work done. V. B. Liberman, M. L. Rylova and B. S. Shapiro. <i>J. Physiol.</i> (U. S. S. R.) 23:21-35 (1930); <i>Chem. Zentr.</i> 1939, I, 4802.—The curve of the functional relationship between the period of recovery and the work done differs sharply from the corresponding curves for O₂ consumption and pulse rate. M. G. Moser																									
11F																									

RYKOVA, M. L.

Rylova, M. L. - "Some data on methods of research on the effects of sub-toxic doses of poison on humans, " In symposium: Issledovaniya v oblasti prom. toksikologii, Leningrad, 1948, p. 78-82 - Bibliog: 12 Items

SO: U-3600, 10 July 53, (Ietopis 'Zhurnal 'nykh Statey, No. 6, 1949).

RYLOVA, M. L.

Chemical Abstracts
Vol. 48 No. 5
Mar. 10, 1954
Biological Chemistry

Toxic action of 9-vinylcarbazole. (M. L. Rylova (Sci. Research Inst. Ind. and Professional Hyg., Leningrad). *Gigiena i Sanit.* 1953, No. 10, 27-31.—9-Vinylcarbazole produces death in mice at 0.05 g./kg. perorally; with guinea pigs the dose is 0.5 g./kg. as for rabbits. The polymer in the same dosage appears to be harmless. The monomer is a serious skin irritant and sensitizes the skin of rabbits. The polymer has but a weak effect. No appreciable photo-sensitization is observed. G. M. Kosolapoff

RYLOVA, M.L.; LAZAREV, N.V., professor, zasluzhennyy deyatel' nauki, zavedu-
yushchiy.

Toxicity of vinylidenedichloride. Farm.i toks. 16 no.1:47-50 Ja-P '53.
(MLRA 6:6)

1. Toksikologicheskaya laboratoriya Leningradskogo gosudarstvennogo in-
stituta gigiyeny truda i profzabolevaniy. (Vinylidene)

LAZAREV, N.V.; ALEKSANDROV, I.S.; LYUBLINA, Ye.I.; AKKERBERG, I.I.; ZAKA-
BUNINA, M.S.; GADASKINA, I.D.; DOBRYAKOVA, N.S.; KREPS, I.F.; KARASIK,
V.M.; LEVINA, E.N.; DANISHEVSKIY, S.I.; YEGOROV, N.M.; RYLOVA, M.L.,
starshiy nauchnyy sotrudnik; KARPOV, B.D.; ANDREYEV, V.V.; LYKHINA,
Ye.T.; ZAMESHAYEVA, G.I.; ANISIMOV, A.N.; FRIDLYAND, I.G.; DANETSIAYA,
O.L.; BOGOVSKIY, P.A.; TIUNOV, L.A.; MIKHEL'SON, M.Ya.; ABRAMOVA, Zh.I.,
GRIGOR'YEVA, L.M.; KLINSKAYA, K.S.

This Leningrad collection on the problems of industrial toxicology.
Farm.1 toks. 16 no.2:59-62 Apr-46 '53.

(VIRIA 616)
(Poisons)

AID P - 2185

Subject : USSR/Medicine

Card 1/1 Pub. 37 - 5/19

Author : Rylova, M. L., Senior Scientific Worker

Title : Toxic effect of styrene and α -methyl styrene

Periodical : Gig. i san., 5, 21-26, My 1955

Abstract : Tests are described that were performed on white rats and mice poisoned by vapors of styrene (used in the plastics industry) and of α -methyl styrene (used in the synthesis of organic compounds). The effect of styrene and α -methyl styrene on the skin was observed in rabbits. The toxicity of these substances is discussed and recommendations made for workers handling them. Table, diagram. Eight Russian references (1947-1953).

Institution : Toxicological Laboratory, Leningrad Scientific Research Institute of Industrial Hygiene and Occupational Diseases

Submitted : D 22, 1953

RYLOVA, M.L.

Fourth Leningrad Conference on Problems in Industrial Toxicology.
Farm.i toks. 18 no.2:61-64 Mr-Apr '55. (MIRA 8:7)
(INDUSTRIAL TOXICOLOGY)

RYLOVA, M.L., kand.biologicheskikh nauk

The toxicology of certain substances used in the production of synthetic polymers. Gig.i san. 25 no.8:74-'79 Ag '60.

(MIRA 13:11)

1. Iz Leningradskogo instituta gigiyeny truda i professional'nykh zabolevaniy.

(POLYMERS---TOXICOLOGY)

RYLOVA, M.L., kand.biologicheskikh nauk

Some methods for determining the chronic effect of injurious substances. Gig. i san. 25 no. 12:61-66 D '60.

(MIRA 14:2)

1. Iz Leningradskogo instituta gigiyeny truda i professional'nykh zabolevaniy.

(TOXICOLOGY)

GADASKINA, I.D.; LYUBLINA, Ye.I.; MINKINA, N.A.; RYLOVA, M.L. (Leningrad)

Some data on the influence on the animal organism of carbon monoxide under conditions of continuous and intermittent action. Gig.truda i prof.zab. no.11:13-18 '61. (MIRA 14:11)

1. Nauchno-issledovatel'skiy institut gigiyeny truda i profzabolevaniy.

(CARBON MONOXIDE--PHYSIOLOGICAL EFFECT)

ABRAMOVA, Zh.I.; BRUSILOVSKAYA, A.I.; GADASKINA, I.D.; GOLUBEV, A.A.;
GRIGOR'YEV, Z.E.; DANISHEVSKIY, S.L.; KOVNATSKIY, M.A.; KOVRANSKIY, B.B.;
LAZAREV, N.V.; LEVINA, E.N.; LYUBLINA, Ye.I.; LYKHINA, Ye.T.; OSIPCV,
B.S.; RYLOVA, M.L.; RUSIN, V.Ya.; SLONIM, A.D.; FRIDLYAND, I.G.

Il'ia Stepanovich Aleksandrov. Farm.i toks. 24 no.1:127 Ja-F '61.
(MIRA 14:5)

(ALEKSANDROV, IL'IA STEPANOVICH, 1902-1960)

[illegible]

ABROSIMOV, E.A.; RYLOVA, N.A.

Precision meter of active resistances and conductances. Izv.tekh. no.8:
50-53 Ag '64. (MIRA 17:12)

RYLOUA, K. 1
1682. The influence of phosphoric anhydride on the whiteness of titanium enamels—
V. V. VARGIN and R. I. BELYAIEV. *Prikl. Khim.*, Leningr., 29, 293, 1956). In Russian.
The addition of P₂O₅ to Ti enamels eliminates their yellow colour and increases their
reflectance by 10–30%. This is caused by the retardation of rutile formation and the
crystallization of TiO₂ as anatase, and by a decrease in the size of the precipitated
crystals. (3 figs., 1 table.)

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VARGIN, V.V.; RYLOVA, R.I.

Effect of phosphoric anhydride on the whiteness of titanium
enamels. Zhur.prikl. khim. 29 no.2:293-295 F '56. (MLRA 9:6)
(Phosphorus oxide)(Enamel and enamelling)(Titanium)

Rylova R. I.

451

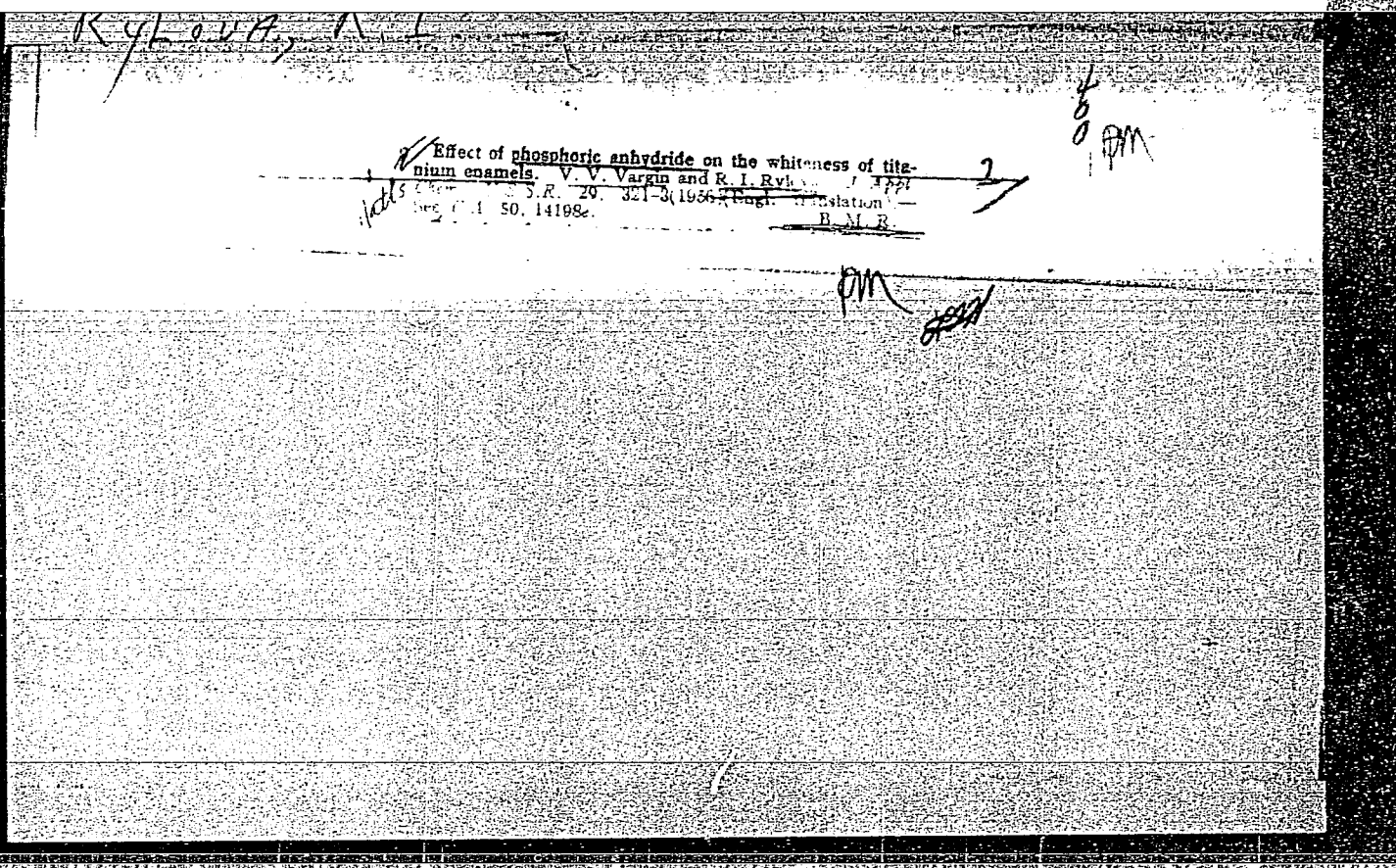
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Mark 2

✓ Effect of phosphoric anhydride on the whiteness of titanium enamels. V. V. Vargin and R. I. Rylova. *Zhur. Priklad. Khim.* 29, 213-2 (1957). The index of reflection of TiO_2 enamels; determined and plotted as a function of the P_2O_5 content, increased slowly at first (0-3% P_2O_5) and then rapidly up to 4% P_2O_5 and decreased as the firing temp. increased from 760 to 800°. The röntgenographic pattern of the enamel without P_2O_5 was similar to that of rutile, whereas that of the enamel containing P_2O_5 was similar to that of anatase. Microscopic exams. showed that the presence of 4% P_2O_5 decreased the particle size from 0.04 to 0.003 mm. and the color changed from yellow to colorless. This corroborates the results of Cole (cf. C.A. 46, 92764) that particle size influences the color of enamels.

I. Bencowitz

RM



POSTOL, G.S.; SHAPIRO, S.Ye.; FRISHMAN, R.B.; RYLOVA, Ye.S.; GRAKHOVA, L.I.;
ABUSHKEVICH, P.V.; MAZURIN, N.D.

Study of serous-viral meningitis in Khabarovsk in 1959. Vop. okh.
mat. i det. 6 no.11:9-14 N '61. (MIRA 14:12)

1. Iz kliniki pediatrii (zav. - dotsent G.S.Postol), kliniki
infektsionnykh bolezney (zav. - dotsent S.Ye.Shapiro) Khabarovskogo
meditsinskogo instituta (dir. - prof. S.K.Nechepayev) i sanitarno-
epidemiologicheskogo otryada Dal'nevostochnogo okruga (nachal'nik
M.I.Lev). (MENINGITIS) (Khabarovsk...VIRUS DISEASES)

1ST AND 2ND PAPERS

COMMON ELEMENTS

OPEN

NATURAL HISTORY

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

REGIONAL LITERATURE

1930-1939

1940-1949

1950-1959

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4230-4239

4240-4249

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4300-4309

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4680-4689

4690-4699

4700-4709

4710-4719

4720-4729

4730-4739

4740-4749

4750-4759

4760-4769

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4780-4789

4790-4799

4800-4809

[illegible]

RYLSKA, T.; RCZEGNALOWA, L.

Studies on the chances of inheriting acquired characteristics as a result of a photoperiodic induction in the short day plant *Perilla ocimoides* L. *Acta agrobotanica* 9 no.2:63-73 '60.

1. Laboratorium Fizjologii Rozwoju Roslin, Instytut Hodowli i Aklimatyzacji Roslin, Warszawa.

ZASLAVNIY, F. Ya.; RYL'SKAYA, N.V.

Template for determining defect coordinates in ultra-
sound testing. Defektoskopia no. 5:84-86 '65.

(MIRA 19:1)

KOZLOVA, M.M.; RYL'SKAYA, P.A.

Use of polyacrylamide in the coagulation of paper. Bum.prom.
35 no.9:26-27 S '60. (MIRA 13:9)

1. Poninkovskiy tsellyulozno-bumazhnyy kombinat.
(Paper) (Acrylamide)

RYLSKI, Leszek; PAC-POMARNACKA, Elzbieta; STRUPCZEWSKA, Elzbieta;
KROBJILOWSKA, Magdalena; ZANDER, Krystyna

Synthesis of some amino derivatives of 2-phenethylamine.
Acta Pol. pharm. 22 no.3:197-201 '65.

1. Z Zakladu Technologii Chemicznej Srodkow Leczniczych
Akademii Medycznej w Gdansk (Kierownik: doc. dr. L. Rylski).

RYLSKI, Leszek

Synthesis of the 4-(9-fluorenyl)-, 4-(9-xanthyl)- and 4-(benzhydryl)-
derivatives of N-methyl-4-piperidinol. Acta pol. pharm. 19 no.5:
447-452 '62.

1. Z Zakladu Technologii Chemicznej Srodkow Leczniczych Akademii
Medycznej w Warszawie Kierownik: prof. dr S. Biniecki.
(PIPERIDINES) (FLUORENES) (XANTHENES)

5

Some derivatives of phthalazine and pyridazine as potential hypotensive agents. S. Biniecki, A. Haase, J. Izdebski, E. Kesler, and L. Ryłski (Inst. Farm., Warsaw). *Bull. acad. polon. sci., Sér. sci., Chim., géol. et géograph.* 6, 227-33 (1958) (in English).—Hypotensive agents less toxic than 1-hydrazinophthalazine (I) hydrochloride are sought among *N*-derivs. of I. *N*-Carbethoxy-*N'*-phthalazinohydrazine (II)-HCl.H₂O, m. 212° (decompn.), and 1,4-dicarbethoxyhydrazinophthalazine (III)-HCl.H₂O, m. 207° (decompn.), were prepd. from I and 1,4-dihydrazinophthalazine (IV), resp. Condensation in pyridine soln. of nicotinoil and isonicotinoil chlorides with I and with 3-hydrazino-6-phenylpyridazine (V) gave: 3-(3-pyridyl)-s-triazolo[3,4-*a*]phthalazine, m. 215-16°; 3-(4-pyridyl)-s-triazolo[3,4-*a*]phthalazine, m. 253-4°; 3-(3-pyridyl)-6-phenyl-s-triazolo[4,3-*b*]pyridazine, m. 183-9°; and 3-(4-pyridyl)-6-phenyl-s-triazolo[4,3-*b*]pyridazine, m. 306-7°, resp. V, m. 145-6°, was prepd. by: condensation of β -benzoylpropionic acid with N₂H₄, bromination, hydrolysis, action of POCl₃, and condensation of the 3-chloro-6-phenylpyridazine with N₂H₄. 1-Phthalazinohydrazones (VI) were prepd. by condensing I with substituted PhCOMe (substituent and m.p. of hydrazone given): H, 144-5°; 2-OH, 203-5°; 4-OH, 229-31°; 2-NH₂, 263-70°; 4-NH₂, 183.5-5.5°. With substituted PhCHO (substituent and m.p. of hydrazone given): 2-OH, 211-12°; 4-OH, 197°; and with piperonal (hydrazone, m. 238-8°). 1-Hydrazino-6-chlorophthalazine monohydrate, m. 248° (decompn.), was prepd. from 5-chlorophthalide (after Levy and Stephen, *C.A.* 25, 3325) by bromination, hydrolysis, action of N₂H₄ (cf. Vaughan and Baird, *C.A.* 46, 5740), POCl₃, N₂H₄, and 2N

HCl. 1-Hydrazino-7-chlorophthalazine (VII)-HCl.H₂O, m. 248° (decompn.), was prepd. from 6-aminophthalide (cf. Borsche, *et al.*, *C.A.* 28, 4050°) by exchange of NH₂ for Cl, bromination, hydrolysis, condensation with N₂H₄ (cf. R. Vaughan, S. L. Baird, *loc. cit.*), action of POCl₃, N₂H₄, and 2N HCl. The order of decreasing pharmacodynamic activity is: 1-hydrazino-4-chlorophthalazine > VII > II > I > IV. VI in MeNHCOMe solns. had transient hypotensive effects on animals. Toxicity of II is 1/10 of that of I or IV. No exptl. details are given. J. Steck

RyLski, L.

POLAND / Organic Chemistry. Synthesis.

0-2

Abstr Jour: Ref Zhur-Khimiya, No 7, 1959, 23426

Author : Bibiecki, S.; Haase, A.; Izdebski, J.; Kessler, E.;
Rylski, L.

Inst : Academy of Sciences of Poland

Title : Some Phthalazine and Pyridazine Derivatives as
Potential Hypotensive Agents.

Orig Pub: Bull. Acad. polon. sci. Ser. sci. chim., geol. et
geogr., 1958, 6, No 4, 227-233.

Abstract: A preliminary report on the research for new hypo-
tensive agents close to 1-hydrazinophthalazine
(I) and 1,4-dihydrazinophthalazine (II). Hydro-
chloride of N-carbethoxy-N'-phthalazinohydrazine,
melt. p. 212° (diasoc.), was obtained from I and
ClCOOC₂H₅. That hydrochloride, preserving the
hypotensive properties of I, is 4 times less toxic

Card 1/3

G-12

POLAND / Organic Chemistry. Synthesis.

G-2

Abstr Jour: Ref Zhur-Khimiya, No 7, 1959, 23426

Abstract: 6-chloro-I, melt. p. 248° (dissoc.), and 7-chloro-I, melt. p. 248° (dissoc.), and the synthesis of 1-phthalazine hydrazones of the following aldehydes and ketones are also described (the carbonyl compounds and the melting point of the hydrazone in °C are enumerated): acetophenone, 144-145; o-hydroxyacetophenone, 203-205; p-hydroxyacetophenone, 229-231; o-aminoacetophenone, 268-270; p-aminoacetophenone, 183.5-184.5; o-hydroxybenzaldehyde, 211-212; p-hydroxybenzaldehyde, 197; piperonal, 236-238. Experiments with hydrogenation of hydrazones did not produce positive results. The hypotensive action of hydrazones is weaker and shorter than that of I. -- R. Olushkov

Card 3/3

G-17

RYLSKI, Leszek; SENCZUK, Lidia; ADAMIAK, Alicja; PODKOWA, Sabina;
WOZNIAK, Maria

Synthesis of 2-phenyl-1-keto-1,2-dihydrophthalazine derivatives.
Acta Pol. pharm. 22 no.2:111-115 '65.

1. Z Zakładu Technologii Chemicznej Srodkow Leczniczych
Akademii Medycznej w Gdansk (Kierownik: doc. dr. L. Ryłski).

RYLSKI, Leszek

Synthesis of 4-(9-fluorenyl)-, 4-(9'-xanthyl)-, and 4-benzhydryl-derivatives of N-methyl-4-piperidinol. II. Fluorenyl and xanthyl derivatives. Acta pol. pharm. 20 no.1:1-8 '63.

1. Z Zakladu Technologii Chemicznej Srodkow Leczniczych Akademii Medycznej w Warszawie Kierownik: prof. dr St. Biniecki.

(PIPERDINES) (FLUORENES) (XANTHENES)
(CHEMISTRY, PHARMACEUTICAL)

RYLSKI, Leszek

Synthesis of 4- [9'-fluorenyl] -, 4- [9'-xanthyl] - and
4- [benzhydryl] -N-methyl-4-piperidinol derivatives. III.
Xanthyl and benzhydryl derivatives. Acta pol. pharm. 20 no. 4:
175-180 '63.

1. Z Zakladu Technologii Chemicznej Srodkow Leczniczych Aka-
demii Medycznej w Warszawie Kierownik: prof. dr S. Biniecki.
(PIPERIDINES) (XANTHINES) (FLUORENES)
(CHEMISTRY, PHARMACEUTICAL)

RYLSKI, LESZEK

7
4
1/1
Synthesis of 2-aminothiazole and 2-sulfanilamidothiazole.
Stanislaw Bimiecki and Leszek Ryłski (Med. Acad., War-
saw). *Acta Polon. Pharm.* 14, 143-6 (1957).—2-Amino-
thiazole-HCl (I.HCl) was obtained by condensing at 50-55°
thiourea in H₂O with products of chlorination of EtOH. I
can be produced by continuous extrn. from an alk. soln. of
I.HCl. 2-Sulfanilamidothiazole (II) was obtained by
condensing I.HCl, neutralized with NaHCO₃, with moist p-
AcNHCH₂SO₂Cl, hydrolyzing the resulting ppt. with NaOH,
and neutralizing with HOAc. Crude II was purified by C
treatment and crysln. from H₂O-EtOH. A. S. S.

BENIECKI, S.; BUKOWSKI, S.; RYLSKI, L.

Side alkaloids of so-called sak. Acta Poloniae pharm. 11 Suppl.:
36 1955.

1. Zaklad Technologii Chemicznej Srodkow Leczniczych A. M. w
Warszawie.

(MORPHINE, preparation of,
intermediate prod. sak, isolation of codeine)
(CODEINE, determination,
in intermediate product of morphine synthesis sak)

R/LSK/L,

POL.

1 New spasmolytic drugs acting like papaverine. Stanislaw Bielecki and Leszek Rykowski. *Acta Polon. Pharm.* 11, 9-20 (1954) (English summary). The following derivs. of $\text{PhCH}_2\text{CH}_2\text{NH}_2$ (I) were synthesized and studied: *N*-piperonyl (II), *N*-(1- $\text{C}_6\text{H}_5\text{CH}_2$) (III), and *N*-(2- $\text{C}_6\text{H}_5\text{CH}_2$) (IV). II was obtained by condensation of piperonal with I (Hamilton and Robinson, *C.A.* 11, 249), and subsequent reduction (Mozingo, *Org. Syntheses* 26, 78 (1946) (*C.A.* 41, 844h)) and isolated as the *HCl* salt, m. 242° (from H_2O), yielding with NaOH the free base, b.p. 290-10° (bath temp.), d_4^{20} 1.148, n_D^{20} 1.5759. I with 1- $\text{C}_6\text{H}_5\text{CHO}$ gave 1- $\text{C}_6\text{H}_5\text{CH}_2\text{NCH}_2\text{CH}_2\text{Ph}$, b.p. 100-95° (bath temp.), d_4^{20} 1.109, n_D^{20} 1.8428; reduced with $\text{Pd} + \text{H}$ or $\text{EtOH} + \text{Na}$ to III, isolated as III *HCl* salt, m. 182-3° (from H_2O); free base, b.p. 215-25° (bath temp.), d_4^{20} 1.078, n_D^{20} 1.6201. I with 2- $\text{C}_6\text{H}_5\text{CHO}$ gave 1- $\text{C}_6\text{H}_5\text{CH}_2\text{NCH}_2\text{CH}_2\text{Ph}$, m. 108-9° (from abs. alc.), reduced with $\text{Pd} + \text{H}$ to IV, isolated as IV *HCl* salt, m. 239° (from H_2O or alc.); free base, b.p. 210-15° (bath temp.). IV treated with a mixt. of HCO_2H and CH_3O 5 hrs. at 120-30° in a pressure tube gives $\text{Me}(2-\text{C}_6\text{H}_5\text{CH}_2)\text{NCH}_2\text{CH}_2\text{Ph}$; *HCl* salt, m. 176.5° (from CHCl_3 and Et_2O). The *HCl* salts of II, III, and IV have a physiol. action similar to that of papaverine. 21 references. Michael Dymicky.

✓ Isolation of narcotine, thebaine, and codeine in the extraction of morphine by the method of Kabay. Stanislas Bielecki and Leszek Ryłski (Acad. med. Warsaw). *Ann. pharm. franc.* 74, 212-11 (1930). — The crude concentrate of total alkaloids was prepd. by extg. the powd. poppy capsules with a dil. soln. of NaHSO_4 , evapd. *in vacuo* to a thick fluid.

alkalinization, extn. with $\text{EtOH} \cdot \text{C}_6\text{H}_6$, acidifying with H_2SO_4 , and removal of the solvents by azeotropic distn. The concentrate, 25 kg. from 2000-kg. capsules, was brought to a pH of 10, and extd. repeatedly with C_6H_6 . Of 60 l. ext. 4 l. was evapd. below 50° to 400 cc., 3 times extd. with 1% HCl , and the filtered aq. ext. was mixed with NaOAc crystals to make the pH 5.5-6. After standing overnight, the liquid was decanted and the ppt. dissolved in hot EtOH giving, after standing at low temp., 9.5 g. crude narcotine, which was purified by transforming it into the HCl salt, m. $190-1^\circ$. The decanted liquid was alkalinized with 25% NH_4OH and the ppt. formed on standing dissolved in 12 cc. hot EtOH and mixed with 1.5 g. tartaric acid in 60 cc. EtOH , giving in 24 hrs. 2.3 g. crude thebaine bitartrate, which was purified as the base, m. $190-1^\circ$, by treating with Na_2CO_3 . HCl salt m. 182° . The mother liquor from the thebaine was treated with 35 g. CaO in 50 cc. H_2O , the ppt. filtered and washed with H_2O , the filtrate extd. with $\text{ClCH}_2\text{CCl}_3$, the ext. evapd., dissolved in 15 cc. EtOH , and mixed with 4 cc. 20% H_2SO_4 in EtOH , giving 7 g. crude codeine sulfate which was crystd. and pptd. with NaOH as codeine base, m. $153-5^\circ$. The morphine is practically insol. in the C_6H_6 and is obtained from the residue.

A. R. Meyer

RYLSKI, LESZEK

Spasmolytic substances. Stanislas Binicki, Leszek Iwyski, Pierre Kubikowski, Jeanne Maillecheyz, and Jeanne Szynalska (Acad. med., Warsaw). *Ann. pharm. franc.* 13, 249-57 (1955). — PhCH_2CN was reduced with Raney Ni and H or with Na and EtOH giving 51 and 48%, resp., of $\text{PhCH}_2\text{CH}_2\text{NH}_2$, b_p 72-73°. Condensation with piperonal gave 95% $\text{PhCH}_2\text{CH}_2\text{N}:\text{CH}(\text{C}_6\text{H}_5)\text{CH}_2\text{C}_6\text{H}_5$, 3-4, m_p 70°, d_4^{20} 1.07-80°. This 2 g. in 30 ml. anhyd. EtOH hydrogenated with 1 g. C. contg. 5% Pd in 10 cc. EtOH, filtering and with the catalyst, evapg. the soln. to 5 cc., and satg. with gaseous HCl gave 2 g. *N*-piperonyl- β -phenylethylamine. gaseous HCl (I), m_p 242°. Dissolving the HCl salt in 10 cc. 10% NaOH, extg. with Et₂O, drying and evapg. gave 87% of the liquid base, which *distd.* at 0.5 mm. and 200-210°, had d_4^{20} 1.148, n_D^{20} 1.5759. 1-Chloromethylaphthalene was transformed into 1-naphthovaldehyde with methanamine. The aldehyde, 3 g., heated 15 min. at 100° with 2.4 g. β -phenylethylamine, dried *in vacuo*, and *distd.* at 0.003 mm. and 160-96° gave 4.8 g. 1- $\text{C}_6\text{H}_5\text{CH}_2\text{NCH}_2\text{CH}_2\text{Ph}$ (II), a colorless liquid, d_4^{20} 1.109, n_D^{20} 1.6128. Adding 5 g. Na in small portions to a soln. of 1.2 g. II in 70 cc. EtOH, refluxing 30 min., adding 10 cc. HCl to pH 1, filtering and washing the pptd. NaCl with 35 cc. EtOH, evapg. the filtrates, adding EtOH to make 15 cc. and 30 cc. H₂O gave 2.4 g. *N*-(1-

naphthylmethyl)-3-phenylethylamine-HCl (III), m. 188-7° (from 80% EtOH); sol. in EtOH, sparingly sol. in H₂O. The reduction of II can also be effected with a Pd catalyst as described. Extn. of 2.4 g. of III in 10 cc. 10% NaOH soln. with Et₂O, drying and evap. the Et₂O and distg. at 0.02 mm. and 215-25° gave the base of III as an oily liquid, d₄²⁰ 1.079, n_D²⁰ 1.6201, sol. in EtOH and Et₂O. Naphthalene and AlCl₃ gives 60% 2-acetylnaphthalene which is oxidized with NaOCl to 2-naphthoic acid with 96% yield, and the latter gives 7% 2-naphthoyl chloride. Reduction with Pd-BaSO₄ and H gives 67% naphthaldehyde. Heating 3.7 g. of the latter with 1.8 g. PhCH₂CH₂NH₂ gives 3.2 g. 2-C₆H₄CH₂NCH₂CH₂Ph (IV), m. 108-9° (from EtOH), sol. in hot, but poorly in cold, EtOH, very sparingly sol. in H₂O. Reducing 3 g. IV with H and 5% Pd-C, in EtOH, filtering, evap. and satz. with HCl gas gives 1.63 g. 2-C₆H₄CH₂NHCH₂CH₂Ph.HCl (V), m. 260°, spar-

STANISLAS BINIECKI

ingly sol. in H₂O and EtOH. Treating V with NaOH, extg. with Et₂O and distg. at 0.13 mm. between 210 and 215° gives the base, m. 48°, sol. in Et₂O. Heating 0.5 g. of the latter base in 1.1 g. 80% HCO₂H and 0.4 g. 37% HCHO at 100° and later in a sealed tube at 120-30° for 5 hrs., adding 10% NaOH, extg. with Et₂O, drying the Et₂O soln. with Na₂SO₄, and adding HCl in EtOH gives 0.4 g. 2-C₁₀H₇CH₂N(Me)CH₂CH₂Ph.HCl, m. 176.5° (pptd. from CHCl₃ with EtOAc). I and III have a strong spasmolytic action on the smooth muscles of the intestine which is equal to, or in the case of III exceeds, the effect of papaverine. I has a more marked dilator action on the blood vessels. The spasmolytic action on the bronchial muscles is weak. Intravenous administration shows a passing depressing effect on the blood pressure. Subcutaneous doses of 1 mg./100 g. produce a slight nervous excitation in the mouse. The LD₅₀ in intravenous application is 4.1 mg./100 g. for I and 3.6 mg. for III. A. B. Meyer

2/2

WYSZNACKA-ALEKSANDROW, Wanda; BACZKO, Aurelia; DZIDUSZKO, Tadeusz;
OSTASZEWSKA, Janina; RYLSKI, Mirosław; RYLSKI, Sławomir

Evaluation with the aid of the "blind" test of geriocaine
therapy of the elderly. Pol. tyg. lek. 18 no.8:287-291
18 F '63.

1. Z II Kliniki Chorob Wewnętrznych AM w Warszawie; kierownik:
prof. dr med. D. Aleksandrow i z Oddziału Psychiatrycznego
Instytutu Psychoneurologicznego w Pruszkowie; dyrektor Instytutu:
prof. dr med. Z. W. Kulligowski; kierownik Oddziału: doc. dr
med. J. Jaroszyński.

(PROCAINE)

BACZKO, Aurelia; BENENDO, Boguslaw; RYLSKI, Mirosław.

Two cases of staphylococcal septicemia associated with pneumonia. Pol. tyg. lek. 18 no. 44:1649-1651 28 0'63.

1. Z II Kliniki Chorob Wewnętrznych AM w Warszawie (kierownik: prof. dr. med. D. Aleksandrow), z Zakładu Radiologii Lekarskiej AM w Warszawie. (kierownik: doc. dr. med. S. L. Zgliczynski).

*

WYSZNACKA-ALEKSANDROW, Wanda; BACZKO, Aurelia; DZIDUSZKO, Tadeusz;
OSTASZEWSKA, Janina; RYLSKI, Mirosław; RYLSKI, Sławomir

Evaluation with the aid of the "blind" test of geriocaine
therapy of the elderly. Pol. tyg. lek. 18 no.8:287-291
18 F '63.

1. Z II Kliniki Chorob Wewnętrznych AM w Warszawie; kierownik:
prof. dr med. D. Aleksandrow i z Oddziału Psychiatrycznego
Instytutu Psychoneurologicznego w Pruszkowie; dyrektor Instytutu:
prof. dr med. Z. W. Kulligowski; kierownik Oddziału: doc. dr
med. J. Jaroszyński.

(PROCAINE)

RYL'SKIY, D.Ya.; MALYSHEV, F.D.; AVSTREYKH, L.D.

Letters to the editor. Elek. i tepl. tiaga 7 no.9:46 S '63.
(MIRA 16:10)

1. Nachal'nik distantzii kontaktnoy seti Yuzhno-Ural'skoy dorogi (for Ryl'skiy). 2. Nachal'nik Mendeleyevskoy distantzii kontaktnoy seti Sverdlovskoy dorogi (for Malyshev). 3. Nachal'nik distantzii kontaktnoy seti Moskovskogo uchastka energosnabzheniya Oktyabr'skoy dorogi (for Avstreykh).

RYL'SKIY, F.I.

Breeding a winter hardy Kursk carp. Trudy sov. Ikht. kom.
no.14:178-180 '62. (MIRA 15:12)

1. Rybovodnoye khozyaystvo "Klyuchiki" Belgorodskoy
oblasti.

(Carp breeding)

L 38987-66 EWT(d)/EWP(k)/EWP(h)/EWP(v)/EWP(l) BC

ACC NR: AP6002162

SOURCE CODE: UR/0280/65/000/006/0175/0178

AUTHOR: Babakov, N. A.; Lebedev, R. K.; Ryl'skiy, G. I.

ORG: none

TITLE: The Third All-Union Conference on Automatic Control (Technical Cybernetics)

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 6, 1965, 175-178

TOPIC TAGS: automatic control system, scientific conference, international conference

ABSTRACT: This is a report on the work and achievements of the Third All-Union Conference on Automatic Control (Technical Cybernetics) held from 20 to 25 September, 1965 in Odessa, and on board the steamship "Admiral Nakhimov" which made a special cruise for the occasion along the Odessa-Batumi-Odessa route. The conference was attended by 1100 scientists and engineers from 83 cities of the Soviet Union and 50 scientists from England, Bulgaria, Hungary, German Democratic Republic, U.S.A., Italy, Norway, and other countries. A total of some 200 papers were read. There were 17 working sections at the conference which dealt with the following subject areas: the use of computer engineering for production control; self-adjusting systems; multiple-coupled and invariant systems;

Card 1/2

L 38987-66

ACC NR: AP6002162

nonlinear systems; discrete systems; optimum systems; statistical systems and methods; image recognition; relay mechanisms and finite automata; large systems; application of optimal and self-adjusting systems; properties and characteristics of controlled plants; new elements; reliability of automatic control devices and systems; ways and means of mathematical simulation; equipment for the automation of industrial processes; telemechanical systems and devices. The work of these sections was in part supplemented by round table discussions on subjects of a more general nature. The article briefly summarizes and discusses the more important and interesting papers presented before each of the working sections of the conference. The papers read at the conference were in the main characterized by freshness of approach and a high level of scientific excellence. It is concluded that the conference was able to pinpoint the most significant tasks in the field of automatic control. It recognized that, apart from the further development of new and promising theoretical trends, the fundamental problem to be met is that of the quickest possible industrial application and utilization of theoretical achievements for better operational efficiency in production enterprises.

SUB CODE: 05,09,13/ SUBM DATE: None

Card 2/2 *h/s*

RYL'SHIY, I. V.

Architect who prepared technical Blueprint of River Terminal.

Soviet Source: N: Izvestiya 14 Apr. 46, Moscow

Abstracted in USAF "Treasure Island", on file in Library of Congress,
Air Information Division, Report No. 91885, UNCLASSIFIED.

RYL'SKIY, MAKSYM

USSR/ Miscellaneous Politics

Card : 1/1

Authors : Ryl'skiy, Maksim, Act. Memb. of Acad. of Sc. Ukr-SSR

Title : ~~USSR/ Ukraine is blossoming~~
The Soviet Ukraine is blossoming

Periodical : Nauka i Zhizn'. 5, 1 - 3, May 1954

Abstract : History of annexation of the Ukraine by the Russians and the development (economical and cultural) of the Ukraine under the government of the USSR.

Institution :

Submitted :

RYL'SKIY, V.

First steps. Voenn. znaniya. 39 no.2:18-19 F '63. (MIRA 16:3)

1. Zamestitel' predsedatelya Sverdlovskogo oblastnogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu.

(Sverdlovsk Province—Military education)

RYL'SKIY, V.

Taking account of life's demands. Voen. znan. 37 no.8:18-19
Ag '61. (MIRA 14:7)

1. Predsedatel' byuro seksii orgmassovoy raboty i propagandy
voyennykh znaniy Dobrovol'nogo obshchestva sodeystviya armii,
aviatsii i flotu, g. Sverdlovsk.
(Sverdlovsk--Civil defense)

RYL'SKIY, V.

Taking account of life's demands. Voen. znan. 37 no.8:18-19
Ag '61. (MIRA 14:7)

1. Sekretar' Tsentral'nogo komiteta Leninskogo kommunisticheskogo
soyuza molodshi Belorussii.

(White Russia--World War, 1939-1945--Underground movements)

(Patriotism)

AUTHOR: Ryl'tsev, A.N. SOV/19-58-6-179/685

TITLE: Zero-Sequence Current Protection for Electric Installations
(Tokovaya zashchita nulevoy posledovatel'nosti elektricheskikh ustanovok)

PERIODICAL: Byulleten' izobreteniy, 1958, Nr 6, p 43 (USSR)

ABSTRACT: Class 21c, 68⁵⁰. Nr 113419 (583504 of 21 Sep 1957). Submitted to the Committee for Inventions and Discoveries at the Ministers Council of USSR. Protection as specified in the title, with the use of a toroidal current transformer with three primary windings and one secondary winding feeding the relay. For the purpose of simplifying the checking of the protection prior to switching-in an electric installation, the current transformer is provided with an additional control winding which can be connected to the voltage transformer by a push button.

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[Laboratory work on safety engineering and fire prevention]
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